

CLAIMS

1) A cosmetic method of treating skin ageing, **characterized by** comprising the following steps:

- 5 a) connecting an electronic device, able to generate high frequency electric current waves having a distorted sinusoidal wave form by the presence of harmonics, to one or more electrodes of essentially laminar shape;
- b) applying said one or more electrodes on the skin surface in the area to be treated;
- 10 c) activating said electronic device in order to transfer said current waves to said one or more electrodes and to maintain said device activated for a predetermined time;
- d) deactivating said device and removing the electrodes from the contact with the treated area.

2) The method according to claim 1) **characterized in that** said sinusoidal wave is distorted by the presence of harmonics from at least the first to the third order.

3) The method according to claim 1) or 2) **characterized in that** said distorted sinusoidal wave form applied to one or more electrodes has a frequency greater than 2 MHz.

20 4) The method according to claim 1) **characterized in that** the distorted sinusoidal wave applied to one or more electrodes has a frequency of about 4 MHz.

5) The method according to claim 1) **characterized in that** the maximum power transmitted to said one or more electrodes is in the range of 40-50 Watts.

6) The method according to claim 1) **characterized in that** the ratio between the supplied power to said one or more electrodes and the surface of said electrodes is not greater than $0,5 \text{ W/cm}^2$.

7) The method according to any of the preceding claims, **characterized in that** said electronic device remains active for a time interval comprised between 0,5 and 5 minutes.

8) A device carrying out the cosmetic method of claim 1) **characterized by** comprising:

- 35 - one or more electrodes (41) of essentially laminar shape, to be applied on the skin by adherence and connected to an electronic device, said device

comprising:

- a rectifier circuit (20) fed by power grid voltage which supplies a voltage (201), to a radiofrequency circuit;
- a radiofrequency circuit (30) comprising at least an electronic switch (305) fed by said voltage (201) and piloted by a piloting circuit (306),
5 **characterized in that** said radiofrequency circuit output consists of a current wave (301) of distorted sinusoidal form by the presence of harmonics of at least the second and third order, said resultant wave circulating in a broadband resonant circuit on the frequency of the pure
10 wave of said distorted sinusoidal form.

9) The device according to claim 8) **characterized in that** said resonant circuit comprises at least the parasitic capacity of said electronic switch (305) and the inductance of the radiofrequency transformer primary circuit which feeds said one or more electrodes.

- 15 10) The device according to claim 8) **characterized in that** said piloting circuit (306) is connected to a controller circuit (310) comprising a microprocessor (314) which interrupts at prefixed intervals the feeding of said piloting circuit, so that the resultant wave which goes through the resonant circuit takes the form of a intermittent pulses train, each of them consisting in
20 an amplitude modulated wave.

11) The device according to claim 8) **characterized in that** the wave form amplitude at the electrode (41) is variable by means of a regulator (303) which modifies the voltage (302) of the piloting circuit (306).

- 25 12) The device according to claim 8) **characterized in that** the wave form amplitude at the electrode (41) is variable by the modification of the rectified direct voltage (201) which feeds said radiofrequency circuit (30), being maintained constant the voltage (302) feeding the piloting circuit (306) of said at least an electronic switch (305).

- 30 13) The device according to claim 8) **characterized in that** the wave form amplitude at the electrode (41) is variable by the modification of the rectified direct voltage (201) which feeds said radiofrequency circuit (30) and by means of a regulator (303) which modifies the voltage (302) of the piloting circuit (306).

- 35 14) The device according to claim 8) **characterized in that** said one or more electrodes of essentially laminar shape comprise an adhesive

surface able to be easily applied and removed from the skin.

5

10

15

20

25

30

35